

# ANNALS OF PURE AND APPLIED LOGIC

Volume 100, Numbers 1-3, 15 October 1999

Abstracted/Indexed in: Current Contents: Physical, Chemical & Earth Sciences, INSPEC Information Services, Mathematical Reviews, PASCAL, Science Citation Index, The Philosopher's Index, Zentralblatt für Mathematik

## Contents

<i>A. Carbone</i> Duplication of directed graphs and exponential blow up of proofs	1
<i>S. Todorčević and J. Väänänen</i> Trees and Ehrenfeucht-Fraïssé games	69
<i>M. Kracht</i> Lattices of modal logics and their groups of automorphisms	99
<i>A. Blass, Y. Gurevich and S. Shelah</i> Choiceless polynomial time	141
<i>C. Pollett</i> Structure and definability in general bounded arithmetic theories	189
<i>O. Bastonero and X. Gouy</i> Strong stability and the incompleteness of stable models for $\lambda$ -calculus	247
Author Index	279

**CONTENTS**  
**direct**

This journal is part of **ContentsDirect**, the *free* alerting service which sends tables of contents by e-mail for Elsevier Science books and journals. You can register for **ContentsDirect** online at: [www.elsevier.nl/locate/contentsdirect](http://www.elsevier.nl/locate/contentsdirect)



0168-0072(19991015)100:1-3;1-P

Keep track of recently published papers  
via the journal's home page on the WWW:  
<http://www.elsevier.nl/locate/apal>